

***Matching Development  
Capabilities with  
Natural Resources and  
Infrastructure Capabilities***



## **ISSUE: MATCHING DEVELOPMENT CAPABILITIES WITH NATURAL RESOURCE AND INFRASTRUCTURE CAPABILITIES**

As one of the most urbanized counties in Florida, it is critically important for Pinellas County to maintain adequate infrastructure to provide the levels of service that residents, businesses and visitors expect of a quality urban community. There are many other places (both within and outside of the region) where residents and businesses can relocate if infrastructure does not keep pace with the demands of growth. The Comprehensive Plan will be evaluated to determine the Plan's success in providing adequate infrastructure to meet the adopted level of service standards, and whether these standards should be amended. Due to its peninsular location, natural disaster planning is of particular significance for Pinellas County. The County will assess current policies and programs with respect to hazard mitigation, disaster recovery, and the community's capacity to respond to a natural disaster. This evaluation will include the following topics:

- Evaluate the effectiveness of the long-term concurrency management program for U.S. Highway 19 and determine whether modifications in the program are necessary. Also, pursue opportunities for multi-jurisdictional coordination in the use and implementation of long-term concurrency management along U.S. Highway 19.
- Pinellas County will assess the challenges in meeting the recreational and open space needs of County residents and visitors
- Pinellas County will evaluate the effectiveness of the current policy framework for ensuring that an adequate supply of potable water is available for all existing and projected uses. The evaluation will consider regional cooperation and coordination in water supply planning and in developing potable water supplies. The County will also evaluate its policies and programs for reducing demand on potable water resources through water conservation measures and by managing reclaimed water to maximize use of the resource. Pinellas County will also consider how participation in the Comprehensive Statewide Water Conservation Program could assist in improving water use efficiency.
- Pinellas County will evaluate how effectively the Plan manages and controls development and redevelopment in the Coastal High Hazard Area (CHHA), maintains or reduces hurricane clearance times, and addresses the need for emergency shelter spaces. This assessment will consider whether there is a need for changes to local evacuation plans and the County's post disaster recovery plan.

## **DISCUSSION OF THE ISSUES**

### **Effectiveness of the Long-Term Concurrency Management Program for U.S. Highway 19 and Determine Whether Modifications in the Program are Necessary.**

As a Florida Intrastate Highway System (FIHS) and Strategic Intermodal System (SIS) facility, U.S. Highway 19 is critically important as a high speed and high volume inter-city and regional facility. Approximately 23 miles in length, the FIHS/SIS segment of U.S. Highway 19, from Gandy Boulevard to the Pasco/Pinellas County Line, traverses five cities as well as the unincorporated County. It is the most heavily used north-south corridor in the County and has experienced severe backlogged conditions for the past two decades. To address the deficient operating conditions through the implementation of a long-term schedule of capital improvements while managing the transportation impacts of land development along the corridor, FDOT District 7 and the Department of Community Affairs recommended that Pinellas County establish a long-term concurrency management (LTCM) system on U.S. Highway 19 from Whitney Road to Klosterman Road. Policy 1.1.8 of the Transportation Element was adopted in 1998, which set the framework for the LTCM system in Pinellas County.

Establishing an LTCM system on U.S. Highway 19 involved the adoption of a LOS standard of "maintain," which established an average annual daily traffic (aadt) and peak hour volume threshold of 10 percent over the traffic volumes that were reported by the MPO in 1998. The County is required to ensure that the traffic volumes on the LTCM do not exceed the maintained standard in order to allow for development to occur in accordance with its Concurrency Management System. Development within the corridor is limited to 50 percent of the floor area/dwelling units allowed by the applicable zoning district. Development projects may exceed this 50 percent cap through the implementation of a transportation management plan (TMP) designed to increase mobility in the corridor.

In combination with the implementation of the maintain LOS standard, the LTCM designation requires the County to work with FDOT and the MPO to implement a 15 year schedule of improvements for the period 1998-2013. The long-term capital improvement program for U.S. Highway 19, as indicated in the Transportation Element and MPO Long Range Transportation Plan, is to convert the facility to a partially controlled access road in its entirety from 49<sup>th</sup> Street to Tarpon Avenue.

In 2004, traffic count data on U.S. Highway 19 was analyzed and Policy 1.1.8 of the Transportation Element was amended to reflect current traffic volumes reported at the time. The count data revealed that the County was in compliance with the maintained standard. A review of land use data on the corridor was also conducted in 2004 to determine the number of vehicle trips anticipated based on

the development of the remaining vacant land within one-half mile of the road centerline. The analysis indicated that development of the remaining vacant land under the current countywide Future Land Use Plan (FLUP) map designation would not cause the maintained standard to be exceeded. However, it is recognized that a substantial percentage of traffic on the facility originates from Pasco County. Therefore, it is important for Pasco and Pinellas County to have a coordinated approach to managing development on the corridor.

There are five local governments with jurisdictional boundaries along the LTCM designated road. These include Largo, Clearwater, Dunedin, Tarpon Springs and Pinellas County. A committee consisting of representatives of these local governments was set up in 2004 to coordinate the review of development projects and proposed FLUP amendments along the corridor for properties over five acres.

As explained in the Summary of the Elements, Pinellas County has been working with FDOT and the MPO to implement a comprehensive plan of short and long-range improvements to U.S. Highway 19. Since 1999, these projects have included improvements to the intersections at Nebraska Avenue and Klosterman Road that were identified in the 1998 FDOT U.S. Highway 19 Action Plan and median modifications recommended by the MPO's U.S. Highway 19 Task Force from Sunset Point Road to the Pasco/Pinellas County Line. In addition, Belcher Road was extended as a four-lane divided facility from Curlew Road to Alderman Road, helping to relieve travel demand on the parallel segments of U.S. Highway 19. A continuous right-turn lane from Republic Drive to Tarpon Avenue and sidewalks from 38<sup>th</sup> Avenue North to Tarpon Avenue have also recently been constructed. Partially controlled access improvements are currently underway from Drew Street to Enterprise Road.

That the maintain level of service standard has been achieved since the establishment of the long-term concurrency management system in 1998 is evidence that the program has been successful in meeting its purpose. This is directly attributable to the combination of the aforementioned improvements and development controls applied through the site plan review process. Based on the current operations of the facility and the efforts underway to improve and protect its traffic carrying capacity and mobility in the corridor, modifications to the existing long-term concurrency management program are not considered necessary at this time.

### **Meeting The Recreational And Open Space Needs Of Residents And Visitors**

Pinellas County has historically focused on the provision of passive regional parks and large natural preserves. The degree of urbanization, the fact that the County's population is growing younger overall, and the diversity of recreational expectations today, has required the County to re-visit this approach.

In 2004, the County initiated a major re-analysis of this direction in recreation, with the help of professional recreational planning consultants. Over the course of a year and a half, phone surveys have been conducted, focus groups have convened, a staff task team was formed, meetings have been held, workshops have been conducted, presentations have been made, data has been collected, all to try and assess current conditions (instead of relying on anecdotal evidence), to assess what the citizens of this County want, and to figure out how to get there.

In all of the information-gathering sessions, one thing was clear – do not compromise the regional park system or our public preserves. In fact, if anything, the message was to provide better protection for them from the impacts of competing uses. While there was strong sentiment that more active recreational venues and opportunities were needed – equally strong was the conviction that they should not go in the County’s parks or preserves.

Two of the top recreational needs that surfaced from all of this assessment were beach access and boat access. Also high on the list were greenspace, bicycle trails and sidewalks, and community centers. These priorities are interesting, but not necessarily surprising. We are surrounded by water and have over 55,000 registered boaters in the County as of 2005, with the highest number of registered pleasure boaters in the State. That does not include the fact that boaters actually come from all over the region to use the boat ramps and marinas in this County. The extent of this regional draw is documented in the recently released study, *A Recreational Boating Characterization for Tampa and Sarasota Bays*, by the Florida Fish and Wildlife Commission.

In addition to being a popular boating venue, the County’s beaches draw people from across the State, from around the Country and internationally. The reputation of the County’s quality beaches stretches far. In fact, Fort De Soto County Park (which also happens to have one of the largest public boat ramps in the Country) was just named the number one beach in the Country in the nationally-recognized annual ranking done by Dr. Stephen Leatherman. The County operates three large regional beach parks (Fred Howard Park in north County, Sand Key Park in mid-County, and Ft. De Soto Park in south County), as well as several beach access parks along the barrier island chain. With demand for beach access always high, and because the beaches are a focal point and help define this County, a concerted effort is underway to identify additional beach access points and to improve beach parking opportunities for beach goers along the barrier islands. The biggest obstacle to acquiring additional beach access is competition for, and therefore the cost of, waterfront property. The rapid conversion of beach property to condominiums is driving a highly competitive market.

The same can be said for boat access locations – the real estate market is such that boat storage locations are also being bought out and converted to condominiums. The tangible result of this phenomenon is the loss of over 1,300

boat slips thus far in 2005. For a community where one of the biggest draws is boating, these types of losses have the potential to become devastating to the local economy and quality of life. Recognizing the critical nature of this issue, the County formed a task team, comprised of members of the boating community, the boating industry and environmental representatives to assess the degree of the problem and to try and devise strategies for countering the systematic losses. At this time, the task force continues to meet and strategies are under discussion.

Competition for, and the scarcity of, land is not only associated with waterfront property. It also affects the ability to readily address the need for more active recreation. There are simply few large vacant tracts of land available for new community centers, more ballfields, or large sportsplexes.

But local comprehensive plans anticipate continued residential development and the potential for a substantial number of new residents in Pinellas County. If we are having trouble meeting recreational expectations now, then an even greater challenge will be providing sufficient recreational opportunities for the anticipated influx of people?

Solutions are available, but in all cases, the County will still be a competitor with the private developer for land. While antiquated or vacated commercial properties offer one as-yet untapped source of land for active recreation, and in many cases, they are already located where compatibility with surrounding land uses would not be an issue, reconstruction and rehabilitation of these already developed properties will likely be expensive.

How then to ensure that as redevelopment activities bring more people to Pinellas County, that one of the very fundamental requirements for a livable and quality community - public access to a diverse array of active and passive recreational opportunities – can be met?

The recent assessment of recreational needs and the master plan for recreation recognize the importance of interspersed neighborhood greenspace in an urban community, and the value of providing safe pedestrian and bicycle travel between neighborhoods, as well as to neighborhood and community recreational venues and to job opportunities. While the County has a long and extensive commitment to recreational trail planning and construction, more attention to neighborhood connections, with an emphasis on logical destinations, can not only help to provide greater cohesion to neighborhoods, but it can also enhance mobility and help alleviate transportation impacts.

Overall, it is clear that the passive and water-dependent recreational opportunities in this County are basic to our character and quality of life. Already, our ability to meet new recreational demands and compete in the real estate market for new opportunities is challenged. It is critical that the impacts of land use changes be assessed accurately and the ramifications on the cost and ability

to provide foundational requirements for a quality lifestyle are understood. It will be necessary to ensure that redevelopment contributes proportionately to the impact. Development regulations and incentives will need to be devised to create a positive redevelopment outcome, where neighborhoods and both existing and future residents will benefit from new and expanded passive and active recreational opportunities. In addition, the County will need to be vigilant and staff will need to be empowered to act quickly when acquisition or partnership opportunities arise.

The Recreation and Open Space Element of the Comprehensive Plan will need to be updated to reflect these new challenges and opportunities, but it will not change significantly in matters of the purpose and commitment to its regional park system, except that certain policies may strengthen the commitment to their protection and further recognize their habitat value. In addition, new policies might reflect a more focused interest in bringing more life, interest and activities to the County park system.

### **Ensuring Adequate And High-Quality Potable Water For The Future**

Pinellas County Utilities distributes water to the unincorporated County and to a large number of the municipalities, and has a long history of state-of-the-art planning and construction to ensure high quality water for its customers. With the advent of Tampa Bay Water in 1998, things changed dramatically in that Pinellas County was no longer in the business of water supply, instead turning over that responsibility, along with Hillsborough County, Pasco County and the cities of St. Petersburg, New Port Richey and Tampa to the new regional water supply utility.

The Comprehensive Plan has always reflected a consistent commitment to potable water conservation and the County's total potable demand has shown a steady decrease even while the overall population increased. Today, average per capita use is only 93 gpcpd. One of the biggest factors in this reduction has been the commitment to maximize use of reclaimed water, which has decreased dependence on potable water for landscape irrigation. In March 1991, the Board of County Commissioners directed that reclaim water be implemented to the maximum extent possible, and today installation of the County's reclaimed water system is almost complete, with lines in the unincorporated County, along the barrier island communities and in several mainland municipalities. With the associated reconstruction and upgrade of the South Cross Bayou Water Reclamation Facility, as of 2005, the County can boast that virtually all of its treated wastewater is recycled, thereby significantly offsetting demands for potable water. Combined with the City of St. Petersburg's reclaimed water program and with several other municipalities implementing programs of their own, essentially all of peninsular Pinellas County stands today as a model of proactive water conservation and innovation. With low flow water fixture codes and requirements, toilet rebates, irrigation shut-off valves and water conservation promotion and education, water conservation is a way of life.

Water supply planning and assuring the provision of potable water in this urban County has been the result of long-standing cooperation and coordination among governments, and with the regional utility.

At this point, the influence of water conservation on water demand has largely been maximized. And, in fact, routinely lower flows than design flow can impact the quality of the water. While this may seem to be a minimal inconvenience, it can translate into a financial impact if water plant designs, storage facilities and water lines, built to capacities that no longer exist ultimately require retrofit to address problems associated with less than design flow.

The Pinellas-Anclote Basin and Pinellas County have been the largest government financiers of the regional water supply system, including the regional water desalinization plant. For Pinellas County Utilities, the largest water distributor in Pinellas County, this has meant a steadily rising cost of water, which is driving some of its municipal customers to investigate the development of their own water supply programs. Perhaps a fundamental and short-sighted flaw in the regional water utility concept and in the strictures of water management district regulations directed at the large public utilities is that the “customer governments” are not affected by the agreements and regulations – and are free to decide to go their own way, leaving – in the case of Pinellas County Utilities - the remaining customers to “pick up the tab” for the ongoing regional projects and retrofit of existing infrastructure to deal with lower flows and water quality issues.

Recognition of the cost of the regional supply and local water management decisions should be thoughtfully addressed before the impact of the high cost of water affects the future of industry, economic redevelopment, and years of conscientious infrastructure planning in this County.

On a much smaller scale, it is hoped that the County and the City of St. Petersburg can reasonably address the need for equity in the cost of water, surcharges and resultant services provided by the City to the unincorporated communities within its service area.

In positioning the Water Supply Element for the future, it is expected that the commitment to conservation will remain, as will support for use of the extensive reclaimed system to offset demand local demand. Support for regional and local cooperation will continue, and the commitment to planning for, and distributing high quality water to every retail and wholesale customer will not change. Scientific and technical leadership in State and regional water supply planning will be ongoing. New areas of consideration will include the relationship between the cost of water supply and economic growth, as well as security of the supply and public safety. In addition, the Water Supply Element will reflect the commitment to addressing unincorporated water issues that affect health and public safety.

## **Managing Development and Redevelopment in the Coastal High Hazard Area (CHHA)**

The Pinellas County Future Land Use Element currently contains goals, objectives and policies for managing land uses, and the impacts of development upon the County's environmental features. For example specific methods used by the County to eliminate or reduce the potential for flood damage and to protect natural features, wetlands, and environmentally-significant areas within the Coastal high Hazard Area (CHHA) include land acquisition, transfers of development rights, regulations requiring upland buffers, and the coastal construction code. Pinellas County employs a set of criteria for identifying and prioritizing properties located within the CHHA for acquisition.

The Natural Disaster Planning Section of the Coastal Management Element (Objective 1.3), Pinellas County restricts development within the CHHA and directs population concentrations out of coastal high-hazard areas. The purpose of the policies is to reduce the exposure of people to natural hazards such as hurricanes, and to protect property from exposure to the damaging affects of a tropical system. Policies that restrict or prohibit mobile home parks, hospitals, nursing homes, and assisted living facilities within Coastal High Hazard Areas are enforced. Further, the Floodplain section of the Natural, Historic and Cultural Resources Element prohibits Future Land Use Map amendments that would allow new development and redevelopment above 5.0 units per acre within the 100-year floodplain. With little vacant land to develop, redevelopment will increasingly replace older construction, and property along the beaches and on the waterfront are often the most desirable location for redevelopment, with new residential condominiums replacing motels and hotels at an increasing rate. A means to ensure that redevelopment, particularly along the vulnerable coastline, does not exacerbate existing evacuation and shelter issues in critical, as the 2004 and 2005 hurricane season has proven.

Following a natural disaster, Pinellas County Government will initially employ its "*Post-Disaster Redevelopment Guide For Pinellas County*" to guide its initial decisions, including recovery operations, permitting decisions and redevelopment priorities. This Guide, which was adopted by the Pinellas County Board of County Commissioners in 1994, has been incorporated into the "*Pinellas County Recovery Implementation Guide*", and is intended to provide guidance and instructions for undertaking post-disaster redevelopment.

However, since the implementation of the "*Post-Disaster Redevelopment Guide For Pinellas County*" in 1994, the County has experienced changes in organization and personnel that affect the make up of the post-disaster redevelopment task force established in the Guide. In fact, it is likely that some Departments, due to personnel changes, are not familiar with the document and its purpose. But, as a result of the 2004 Hurricane Season, many communities across the State experienced, first-hand, the process of post-disaster recovery and redevelopment. Based on experiences from 2004, and now 2005, it is clear

that Pinellas County needs to revisit, and amend and institutionalize, the “*Post-Disaster Redevelopment Guide For Pinellas County*.” This process has begun, with the Planning Department re-convening County staff for the purpose of revisiting the “*Post-Disaster Redevelopment Guide For Pinellas County*”. The summer of 2005 only reinforces the need to complete the task.

### **Hurricane Clearance Times**

To facilitate quick and efficient evacuation, evacuation routes must be clearly identified and well maintained. As a result of the coordinated effort between the County, TBRPC, and FDOT District 7 to establish a network of evacuation routes, many new sections of roadways are now identified as evacuation routes. It remains important, however for the County, Pinellas County Metropolitan Planning Organization staff and FDOT District 7 staff to ensure that there is coordination between capital improvement priorities and plans, and that priority in funding and scheduling is given to roadways and improvements that function for emergency evacuation. High priority should be given to the critical links and evacuation route points established by the “*Tampa Bay Region Hurricane Evacuation Study 2000*”, which include bridges, causeways, portions of designated evacuation routes, and highway facilities that may be affected by heavy evacuation traffic volumes or flooding conditions. Overall, better coordination is required in this regard.

### **Emergency Shelter Spaces**

Chapter 252.385 F. S., requires a statewide shelter program and establishes the “Statewide Emergency Shelter Plan”. Within this Plan, American Red Cross Hurricane Evacuation Shelter Guidance, ARC 4496, sets the criteria and standards for hurricane shelters. Essentially, local jurisdictions are required to provide hurricane shelters that meet the standards of ARC 4496, as amended. The standards were subsequently revised in April 2004 to incorporate new and more stringent physical standards for evacuation shelters. As a result of the 2004 amendments, only 24 public shelters, totaling 75,845 spaces, meet the new standards within the County. While the County and the Pinellas County School Board continue to coordinate, and new schools are being designed to meet certain windloads and function as emergency shelter, the deficit remains. But the hurricane season of 2004 provide an interesting test of shelter availability. With Hurricane Charley, a Category 3, then 4, storm bearing down directly on Pinellas County, only about 9,000 people sought public shelter – far under the number of shelter spaces available. Even while the County has encouraged a “host home” concept (where people in a non-evacuation area take in friends and relatives who reside in an evacuation area) for years, it is unclear, and perhaps unlikely, that so many people had indeed employed such an evacuation strategy.

Overall, three of the four major hurricanes in the 2004 Hurricane Season affected Pinellas County. Public shelters were opened for each of those storms.

Consistently, in each event, very few people opted for public shelter. Use ranged between 9% and 17% of the available shelter space for each of the storm events.

The last time a comprehensive evacuation behavior study was completed in the Tampa Bay area was nearly 20 years ago following Hurricane Elena. Therefore, to better understand current evacuation behavior, the County will be participating in a hurricane evacuation behavior study with the Tampa Bay Regional Planning Council (TBRPC). The TBRPC is proposing to conduct a survey in the four-county region (Pasco, Pinellas, Hillsborough, and Manatee) to update the behavioral analysis prior to the update of the "*Tampa Bay Region Hurricane Evacuation Study 2000*", which is scheduled to begin in the fall of 2005. The behavioral study portion is expected to address all three storms (Charley, Frances and Jeanne) from the 2004 hurricane season and any hurricanes that impact the Tampa Bay region during 2005. The behavioral study will also focus on hurricane vulnerability awareness, family preparedness and response, and citizen knowledge of mitigation for personal safety and property loss prevention. The results will be invaluable in the review and analysis of evacuation decision-making, shelter demand and management, sheltering for special needs populations, evacuation transportation analyses, public information dissemination and public education campaigns. Some delay has occurred in the evacuation behavioral study portion of the update and the County must decide if and how to move the analysis forward before the next hurricane season. Without a better understanding of evacuation behavior it is impossible to prepare and plan for evacuation and shelter needs. The analysis must address the diversity of the County's population, deal with language barriers, not discount pet owners, and address the tourist, the aged, the infirm and the transportation disadvantaged. While we are undoubtedly better prepared than some, are we prepared enough? Do we understand the needs of our population?

### **Debris Management**

The hurricane season of 2004 highlighted the need to prepare for managing extraordinary amounts of storm debris. While the storm debris management effort actually went well, Pinellas County did not receive a direct hit from a major storm. Planning is already underway to refine and add new staging areas for better management of storm debris.

Overall, Pinellas County is at a crossroads, poised for major redevelopment activity, with increasing pressure to consider changes in land uses and densities to promote greater economic potential. Until we know that we can meet our public's needs in the inevitable emergency, and until we know that our land use decisions and development decisions will not exacerbate conditions beyond mitigation, and until we are sure that our capital improvements plans are considering evacuation and public shelter needs as priorities, should we move forward with redevelopment and community revitalization plans that do not address fundamental public safety? These questions and this issue must be at the forefront of public safety planning and redevelopment discussion.